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into said vessel and reaction with said sample thereby releasing a cleavage product, a detector for measuring the increase of the concentration per unit of time in [said] the treated vessel of said cleavage product, and further including a means for measuring the degree of dilution of the discharged sample.

- vessel, said device having a column for treating a sample, said column being exchangeable and filled with a chromatographic carrier treated with a substance having binding a enzyme inhibitor which correspond to at least one enzyme in [a] the sample, a valve/pump assembly having a supply tube connected in series to a sample reservoir so as to fill a vessel with a buffer and [a] the treated sample, a substrate source connected to said vessel for discharge of a substrate into said vessel for reaction with said treated sample, thereby releasing a cleavage product, and a detector for measuring the increase of the concentration per unit of time of at least one said cleavage product, further including a control device connected in series to the column for monitoring the purity of the buffer discharging the sample from the column.
- 32. (once amended) A device for the continuous and automatic measurement of the concentration and activity of enzyme inhibitors in liquids in a vessel, said device having a column for treating a sample having said enzyme inhibitors wherein said column has a chromatographic carrier for specifically binding an enzyme corresponding to at least one enzyme

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Fax No. 4034 P. 3

WELSH & KATZ LTD. 312-655-17564:

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inhibitor in the sample, a valve/pump assembly connected to the end of the column so as to bring at least a part of the sample into contact with a [substrate] measuring assay for reaction therewith, [resulting in a cleavage product with a substitute and at least part of the sample] and a means for detecting the activity of at least one enzyme inhibitor and a means for detecting the concentration of at least one enzyme inhibitor.

Please add new claims 33-63.

- --33. A device according to claim 29 wherein the column can be used repeatedly, as there is an excess of the substance corresponding to the capacity of the column.--
 - --34. A device according to claim 29 wherein the column is exchangeable.--
- --35. A device according to claim 29 further including a control device for checking the purity of the column buffer discharged from the column, said control device working photometrically.--
- --36. A device according to claim 29 further including an arrangement connected in series to the column for measuring the degree of dilution of the discharged sample caused by the column buffer, said arrangement capable of also measuring the volume of liquids.--

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Fax No. 4034 P. 4

MELSH & KATZ LTD. 312-655**-11€94**:

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- --37. A device according to one of the claim 29 wherein the valve/pump arrangement admixes a measuring buffer to the said sample, and if need be, to the column buffer and to the substrate in the test tue so as to produce definite experimental conditions.--
- --38. A device according to claim 29 wherein the detector includes a device for measuring fluorescence.--
- --39. A device according to claim 29 further including a means to thermostat the test tube.--
- --40. A device according to claim 29 further including at least one valve to pass a buffer as a wash liquid at least through the column and the valve/pump arrangement.--
- -41. A device according to claim 29 further including a computer to run and control and if need be, the mixing and charging of the vessel and the detection and evaluation of the concentration increase per unit of time of at least one of the cleavage products of the substrate.--
- --42. A device according to claim 30 wherein the column can be used repeatedly, as there is an excess of the substance corresponding to the capacity of the column.--

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- --43. A device according to claim 30 wherein the column is exchangeable.--
- --44. A device according to claim 30 further including a control device for checking the purity of the column buffer discharged from the column, said control device working photometrically.--
- -45. A device according to claim 30 further including an arrangement connected in series to the column for measuring the degree of dilution of the discharged sample caused by the column buffer, said arrangement capable of also measuring the volume of liquids.--
- --46. A device according to claim 30 wherein the valve/pump arrangement admixes a measuring buffer to the said sample, and if need be, to the column buffer and to the substrate in the test tue so as to produce definite experimental conditions.--
- --47. A device according to claim 30 wherein the detector includes a device for measuring fluorescence.--
- --48. A device according to claim 30 further including a means to thermostat the test tube.--

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6 4 4034 P. 6

MELSH & KATZ LTD. 312-655**-1545€:**

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--49. A device according to claim 30 further including at least one valve to pass a buffer as a wash liquid at least through the column and the valve/pump arrangement.--

--50. A device according to claim 30 further including a computer to run and control and if need be, the mixing and charging of the vessel and the detection and evaluation of the concentration increase per unit of time of at least one of the cleavage products of the substrate.—

--51. A device according to claim 31 wherein the column can be used repeatedly, as there is an excess of the substance corresponding to the capacity of the column.--

--52. A device according to claim 31 wherein the column is exchangeable.--

--53. A device according to claim 31 further including a control device for checking the purity of the column buffer discharged from the column, said control device working photometrically.--

--54. A device according to claim 31 further including an arrangement connected in series to the column for measuring the degree of dilution of the discharged sample caused by the column buffer, said arrangement capable of also measuring the volume of liquids.--

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Fax No. 4034 P. 7

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--55. A device according to one of the claim 31 wherein the valve/pump arrangement admixes a measuring buffer to the said sample, and if need be, to the column buffer and to the substrate in the test tue so as to produce definite experimental conditions.--

- --56. A device according to claim 31 wherein the detector includes a device for measuring fluorescence.--
- --57. A device according to claim 31 further including a means to thermostat the test tube.--
- --58. A device according to claim 31 further including at least one valve to pass a buffer as a wash liquid at least through the column and the valve/pump arrangement.--
- --59. A device according to claim 31 further including a computer to run and control and if need be, the mixing and charging of the vessel and the detection and evaluation of the concentration increase per unit of time of at least one of the cleavage products of the substrate.--
- --60. A device according to claim 32 wherein the column can be used repeatedly, as there is an excess of the substance corresponding to the capacity of the column.--

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Fax No. 4034 P. 8

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--61. A device according to claim 32 wherein the column is exchangeable.--

--62. A device according to claim 32 further including a control device for checking

the purity of the column buffer discharged from the column, said control device working

photometrically .--

--63. A device according to claim 32 further including an arrangement connected in

series to the column for measuring the degree of dilution of the discharged sample caused by the

column buffer, said arrangement capable of also measuring the volume of liquids .--

--64. A device according to claim 32 wherein the valve/pump arrangement admixes a

measuring buffer to the said sample, and if need be, to the column buffer and to the substrate

in the test tue so as to produce definite experimental conditions.--

--65. A device according to claim 32 wherein the detector includes a device for

measuring fluorescence .--

--66. A device according to claim 32 further including a means to thermostat the test

tube .--

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Fax No. 4034 P. 9

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- --67. A device according to claim 32 further including at least one valve to pass a buffer as a wash liquid at least through the column and the valve/pump arrangement.--
- --68. A device according to claim 32 further including a computer to run and control and if need be, the mixing and charging of the vessel and the detection and evaluation of the activity of the inhibitor.--
- --69. A device according to claim 32 further including a computer to run and control and if need be, the mixing and charging of the vessel and the detection and evaluation of the activity or concentration of the inhibitor.--

REMARKS

The above amendments are for purposes of adding clarity and definiteness to the claims.

The new claims are being added to better recite the various aspects of applicants' invention.

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Fax No. 4034 P. 10

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